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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/379,729	08/24/1999	CAMERON BOLITHO BROWNE	169.1416	1640

5514 7590 06/04/2003

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EXAMINER

GOOD JOHNSON, MOTILEWA

ART UNIT	PAPER NUMBER
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2672

22

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/379,729

Applicant(s)

BROWNE, CAMERON BOLITHO

Examiner

Motilewa A. Good-Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to the following communications: application, filed on 08/24/1999; IDS, paper #4, filed on 01/18/2000; Priority, filed on 11/12/1999; Election, filed on 07/30/2001; Amendment A, filed on 04/01/2002; Amendment B, filed 09/24/2002; Supplementary Amendment C, filed 02/26/2003.
2. Claims 1-57 are pending in this application. Claims 1, 18, 34 and 52-57 are independent claims. Claims 1-57 have been amended.
3. The title of the application is "Method and Apparatus for Transforming a set of Closed Curves" (as originally filed).

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/31/2003 has been entered.

Allowable Subject Matter

5. The indicated allowability of claims 7, 10, 15, 16, 24, 27, 32-33, 41, 44 and 49-50 is withdrawn in view of the newly discovered reference(s) to Beall, Inside AutoCAD 14, chapters 16 and 17. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-60 are rejected under 35 U.S.C. 102(a) as being anticipated by Beall et al., Inside AutoCAD 14, July 1997, chapters 16-17.

As per independent claim 1, a method for generating a graphical object comprising a plurality of closed loops . . . comprising the steps of: a providing step of providing a set of continuous second curves lying on the surface . . . second curves contains no self-crossover points; (Beall discloses on page 4, defining the area for hatching, as an area with a series of lines that cross over and does not meet, chapter 17, page 4) a first determining step of determining a set of intersection points, wherein the intersection point are points where the one or more closed first curves intersect . . . (Beall discloses defining a area to be filled as the boundary objects and selecting objects to define the area to be hatch having points that define the area, chapter 17, page 4) a second determining step of determining a set of crossover points within the set of intersection points (Beall discloses defining an area with cross over each other and defining the area as a boundary object, chapter 17, page 4) an assembling step of assembling the plurality of closed loops from curve intervals . . . whereby the plurality of

closed loops abuts a substantial portion of the boundary of the surface; (Beall discloses defining the hatch boundaries, chapter 17, page 4) and a filling step of filling the plurality of closed loops with a fill to produce the graphical object. (Beall discloses filling in areas with hatch patterns, chapter 17, page 6)

With respect to dependent claims 2, 19 and 36, an ordering substep of ordering the set of crossover points in accordance with a predetermined order; a first marking substep of marking one of the points that is highest in the order and that has not been previously marked; a determining substep of determining if a last marked point is a first point in a closed loop and if so performing: a first selecting substep of selecting a curve interval starting at the first point and terminating at an unmarked crossover point; a second marking substep of marking the terminating crossover point of the selected curve interval; or if not performing: a second selecting substep of selecting a curve interval starting at the previous terminating crossover point . . . ; and a third marking substep of marking the current terminating crossover point of the selected curve interval; a first repetition substep . . . ; and a second repetition substep . . . (Beall discloses islands which are enclosed areas within the overall area to be hatched, chapter 17, pages 5-6, and discloses the hatch area may be represented by a single polyline or region, and discloses an explode command which remove the associativity of the object and replaces it with group of line objects that make up the pattern, chapter 17, page 8. Beall further discloses choose pick points to delineate the hatch area where boundary objects are defined or the area to be filled, chapter 17, page 4)

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With respect to dependent claims 3, 20 and 37, determined in determining substep that the last marked crossover point is a first point in a closed loop, the curve interval is selected from the set of one or more closed first curves . . . continues in a first direction, and terminates at a next adjacent unmarked crossover point. (Beall discloses enclosed areas within an overall area to be hatched or islands, and further discloses alternating bands of hatching, chapter 17, page 5)

With respect to dependent claims 4, 21 and 38, determined in said determining substep that the last marked crossover point is not a first point in a closed loop, the curve interval is selected from the set of one or more closed first curves . . . first curve interval encountered around the last marked crossover point in a second direction starting from the previously selected curve interval . . . (Beall discloses normal default style of hatching, which uses alternating bands of hatching, chapter 17, page 5)

With respect to dependent claims 5, 22 and 39, ordering the crossover points according to their position along the set of one or more closed first curves in a fourth direction. (Beall discloses overlapping with the outer style using pick points 1 and pick point 2 to hatch the areas enclosed, chapter 17, page 5)

With respect to dependent claims 6, 23, 24 and 40, the first and fourth direction are in the forward direction, the third direction is either positive or negative, and the second direction is in the same direction as a backward direction. (Beall discloses normal default style of hatching, which uses alternating bands of hatching, chapter 17, page 5)

With respect to dependent claims 8, 25 and 42, the surface is 2-dimensional surface. (Beall discloses)

With respect to dependent claims 9, 26 and 43, the surface is 3-dimensional surface. (Beall discloses a 3D solid model, chapter 17, page 6)

With respect to dependent claim 10, 27 and 44, filling step comprises filling the plurality of closed loops with a predetermined color. (Beall discloses a fill mode to fill an area with a color, chapter 17, page 9)

With respect to dependent claims 11, 28 and 45, providing a set of continuous second curves, comprises the substep of generating the set of continuous second curves. (Beall discloses delineating areas with temporary polylines, chapter 17, page 6)

With respect to dependent claims 12, 29 and 46, providing a set of continuous second curves, comprises the substep of accessing the set of continuous second curves from storage. (Beall discloses hatch pattern files stored in individual files, chapter 17, page 4)

With respect to dependent claims 13, 30 and 47, providing a set of continuous second curves, comprises the substep of selecting one of a plurality of sets of continuous second curves in response to user input. (Beall discloses selecting a hatch pattern, chapter 17, page 7)

With respect to dependent claim 14, 31 and 48, generating substep comprises inputting parameters. (Beall discloses picking points to delineate the hatch area, chapter 17, page 4)

With respect to dependent claim 15, input parameters comprise one or more of the following: base shapes of the continuous second curves, a period of the continuous second curves, and an amplitude of the continuous second curves. (Beall discloses)

With respect to dependent claim 16, amplitude of the continuous second curves varies throughout. (Beall discloses)

With respect to dependent claim 17, 34 and 51, one or more closed first curves constitutes a character glyph of a font. (Beall discloses)

As per independent claim 18, Beall discloses an apparatus () for performing the method of claim 1. Therefore the rationale as applied to claim 1 is included herein.

As per independent claim 35, Beall discloses a program () for performing the method of claim 1. Therefore the rationale as applied to claim 1 is included herein.

As per independent claims 52-60, they are rejected based upon similar rational as above independent claim 1.

Response to Arguments

8. Applicant's arguments with respect to claims 1-57 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is

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(703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


Motilewa A. Good-Johnson
Examiner
Art Unit 2672

mgj
May 28, 2003